

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT                    |                                                                                                                       |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                                         | Parameters/Use Goals                                                                                                  | Organization/Contact                                             | QA/QC Review                                                                                                                                                                                                                                                                                                                                                                                                                       | Comments                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Citizen Monitoring Programs</b>                                               |                                                                                                                       |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Ambient data for general water quality monitoring                                | ALUS – DO, pH, temperature, chlorophyll a, Secchi, salinity, nitrate, nitrite, dissolved ammonia, orthophosphate, TSS | Alliance for the Chesapeake Bay<br>Stacey Moulds<br>804-775-0951 | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, dissolved oxygen, pH, temperature and chlorophyll a data analyzed by DCLS were determined acceptable for assessment of water quality as VA Category 3C or 3D. Laboratory SOPs for chlorophyll a data analyzed by academic lab were not submitted.<br><b>Chlorophyll a data from academic lab not accepted.</b> | Reference February 12, 2004 letter to Stacey Moulds. Data for nitrite, dissolved ammonia, TSS, orthophosphate, Secchi, and salinity were not used for assessment because the state does not have water quality standards for comparison. The state water quality standard for nitrate is relative to human health in public water supplies only.<br><br>140 stations with 8903 measurements over the five year assessment window. |
| Ambient data for general water quality monitoring                                | ALUS – pH, temperature salinity, Secchi depth, nitrate, nitrite, ammonia, orthophosphate                              | Assateague Coastal Trust<br>Jan Hill<br>410- 629-1538            | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, the methods used to collect pH, temperature, and nutrient data were determined unacceptable for use in the assessment<br><b>No data accepted.</b>                                                                                                                                                              | Reference letter of February 12, 2004 to Jan Hill. Data for Secchi depth and salinity were not used for assessment since the state does not have water quality standards for comparison.<br><br>10 stations with 151 measurements collected for 1 ½ years of the assessment window (June 2001- December 2002).                                                                                                                    |
| Citizen biological monitoring program using Audubon Naturalist Society protocols | ALUS – Benthic macroinvertebrates and pH                                                                              | Audubon Naturalist Society<br>Cliff Fairweather<br>703-803-8400  | QA/QC review of pH protocol by DEQ Gary Du, 804-698-4189<br>QA/QC plan and SOPs for benthic macroinvertebrates<br>The method used for pH was determined unacceptable for use in the assessment.<br>Benthic macroinvertebrate                                                                                                                                                                                                       | Reference letter of October 15, 2001 to Cliff Fairweather.<br><br>19 stations with 218 sampling events over the five year assessment window.                                                                                                                                                                                                                                                                                      |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                                               |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                                                          | Organization/Contact                                                                 | QA/QC Review                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comments                                                                                                                                                                                                                                                                                                 |
|                                                               |                                                                                               |                                                                                      | data were used for assessment of water quality as VA Category 3C or 3D.<br><b>pH data not accepted.</b>                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                          |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, orthophosphate, turbidity<br>SWIM – fecal coliform       | Clean Virginia Waterways/Longwood University<br>Katie Register<br>434-395-2602       | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, dissolved oxygen, pH and temperature data were determined acceptable for assessment of water quality as VA Category 3C or 3D; while the nutrient methods were determined unacceptable for assessment. The fecal coliform data were determined unacceptable for assessment due to deviations from Standard Methods.<br><b>Fecal coliform and nutrient data not accepted.</b> | Reference letter of February 12, 2004 to Katie Register. Water quality data for turbidity and orthophosphate were not used for assessment because the state does not have ambient water quality standards for comparison.<br><br>38 stations with 493 measurements over the five year assessment window. |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, phosphorus, orthophosphate, TSS<br>SWIM – fecal coliform | Environmentally Concerned Citizens Organization (ECCO)<br>Sara Bell                  | A summary of protocols is available. No detailed SOP or QA/QC plan available.<br>Gary Du, 804-698-4189<br><b>No data accepted.</b>                                                                                                                                                                                                                                                                                                                                                              | Reference letter of October 4, 2001 to Sara Bell.<br><br>4 stations with 14 measurements for 1 year of the assessment window (1999-2000).                                                                                                                                                                |
| Ambient data for general water quality monitoring             | ALUS – total phosphorus, nitrate, chlorophyll <i>a</i> , Secchi<br>SWIM – fecal coliform      | Ferrum College/Smith Mountain Lake Association<br>Dr. Carolyn Thomas<br>540-365-4368 | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols, analytical methods, and lab audit, the data were determined unacceptable for assessment due to deviations from                                                                                                                                                                                                                                                                                     | Reference letter of February 12, 2004 to Dr. Thomas.<br><br>105 stations with approximately 2800 measurements over the five year assessment window.                                                                                                                                                      |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                                       |                                                                                |                                                                                                                                                                                                                                                              |                                                                                                                                                                         |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                                                  | Organization/Contact                                                           | QA/QC Review                                                                                                                                                                                                                                                 | Comments                                                                                                                                                                |
|                                                               |                                                                                       |                                                                                | Standard Methods.<br><b>No data accepted.</b>                                                                                                                                                                                                                |                                                                                                                                                                         |
| Ambient data for general water quality monitoring             | ALUS – total phosphorus, nitrate, chlorophyll a, Secchi, SWIM – fecal coliform        | Friends of Claytor Lake<br>Darla Tucker<br>540-674-0166                        | QA/QC review by DEQ<br>Gary Du, 804-698-4189<br>Upon review of the sample collection protocols, analytical methods, and lab audit, the data were determined unacceptable for assessment due to deviations from Standard Methods.<br><b>No data accepted.</b> | Reference letter of February 12, 2004 to Darla Tucker.<br><br>12 stations with 360 measurements over the five year assessment window.                                   |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, phosphate, ammonia, turbidity                    | Friends of the North Fork of the Shenandoah River<br>Pat Maier<br>540-459-8550 | QA/QC review by DEQ<br>Gary Du, 804-698-4189<br>The methods and sample collection protocols were determined unacceptable for assessment<br><b>No data accepted.</b>                                                                                          | Reference letter of October 4, 2001 to Pat Maier.<br><br>9 stations with 63 measurements collected for 8 months of the assessment window (Sept. 1999-April 2000).       |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, nitrite, phosphate, ammonia, turbidity, salinity | Friends of Powhatan Creek<br>Boots Johnson                                     | A summary of protocols is available. No detailed complete SOP or QA/QC plan available.<br>Gary Du, 804-698-4189<br>The methods were determined unacceptable for assessment.<br><b>No data accepted.</b>                                                      | Reference letter of February 12, 2004 to Boots Johnson.<br><br>7 stations with 134 measurements collected for 1 ½ years of the assessment window (Feb. 2000-June 2001). |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, phosphate, ammonia, turbidity                    | Friends of the Shenandoah River<br>Karen Andersen<br>540-665-1286              | QA/QC review of draft QAPP by DEQ<br>Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, the sample collection methods were determined unacceptable for assessment. The sample collection methods and analytical | Reference letter of October 4, 2001 to Karen Andersen.<br><br>209 stations with 9195 measurements collected for 3 years of the assessment window (1998-2000).           |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                                    |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                                               | Organization/Contact                                               | QA/QC Review                                                                                                                                                                                                                                                                                                                                                                                                         | Comments                                                                                                                                                                                                                                                                                 |
|                                                               |                                                                                    |                                                                    | methods are being modified for use in future assessments.<br><b>No data accepted.</b>                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                          |
| Ambient data for general water quality monitoring             | ALUS – pH, temperature<br>TSS, TP, TN                                              | Historic Green Springs, Inc.<br>Robin Patton                       | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, pH, temperature, and total phosphorus data were determined acceptable for assessment of water quality as VA Category 3C or 3D.                                                                                                                                                                   | Reference letter of February 12, 2004 to Robin Patton. Data for TSS and total nitrogen were not used for assessment because the state does not have water quality standards for comparison.<br><br>5 stations with 22 measurements collected for 1 year of the assessment window (2002). |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, phosphate, turbidity<br>SWIM – fecal coliform | Hoffler Creek Wildlife Foundation<br>Ashley Orgain<br>757-398-9151 | A summary of protocols is available. No detailed SOP or QA/QC plan available.<br>Gary Du, 804-698-4189<br>The methods used for all data were determined unacceptable for assessment<br><b>No data accepted.</b>                                                                                                                                                                                                      | Reference letter of October 4, 2001 to Ashley Orgain.<br><br>10 stations with 105 measurements collected for one and a half years of the assessment window (Sept. 1999-Dec. 2000).                                                                                                       |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, total phosphorus, Secchi<br>SWIM – fecal coliform      | Lake Anna Civic Association<br>Bob Weiner                          | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, pH, dissolved oxygen, temperature, fecal coliform, and total phosphorus data were determined acceptable for assessment of water quality as VA Category 3C or 3D. Temperature and fecal coliform data collected early in the program were not used due to equipment and sample collection issues. | Reference letter of February 12, 2004 to Bob Weiner.<br><br>20 stations with 137 measurements collected for 2 years of the assessment window (2001-2002).                                                                                                                                |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT                                                   |                                                                                                                                                          |                                                                          |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                                                                        | Parameters/Use Goals                                                                                                                                     | Organization/Contact                                                     | QA/QC Review                                                                                                                                                                                                                                                                                            | Comments                                                                                                                                                                                                                                                                                     |
| Citizen biological monitoring program using ANS protocols and ambient data for general water quality monitoring | ALUS – Benthic macroinvertebrates, DO, pH, and temperature                                                                                               | Loudoun Wildlife Conservancy<br>Darrell Schwalm                          | No summary or detailed SOP or QA/QC plan available for chemical protocols. ANS QA/QC plan and SOPs for benthic macroinvertebrates Benthic macroinvertebrate data were used for assessment of water quality as VA Category 3C or 3D.<br><b>Dissolved oxygen, pH , and temperature data not accepted.</b> | Reference letter of February 12, 2004 to Darrell Schwalm.<br><br>16 stations with 154 measurements over the five year assessment window.                                                                                                                                                     |
| Ambient data for general water quality monitoring                                                               | ALUS – pH, temperature<br>TSS, TP, TN                                                                                                                    | Mattaponi and Pamunkey Rivers Association<br>Billy Mills<br>804-769-0841 | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, pH, temperature and total phosphorus data were determined acceptable for assessment of water quality as VA Category 3C or 3D.                                                       | Reference letter of February 12, 2004. Data for TSS and total nitrogen were not used for assessment because the state does not have water quality standards for comparison.<br><br>30 stations with 209 measurements collected for 1 ½ years of the assessment window (Jan. 1998-June 1999). |
| Ambient data for general water quality monitoring                                                               | ALUS – DO, pH, temperature, nitrate, phosphate, ammonia, chlorine, sulfate, sodium, calcium, potassium, magnesium, conductivity<br>SWIM – fecal coliform | Maury River Alliance<br>Dr. David Harbor<br>540-463-8571                 | A summary of protocols is available. No detailed SOP or QA/QC plan available.<br>Gary Du, 804-698-4189<br><b>No data accepted.</b>                                                                                                                                                                      | Reference letter of October 4, 2001 to Dr. Harbor.<br><br>18 stations with 217 measurements collected for 5 months of the assessment window (Aug. 2000-Dec. 2000).                                                                                                                           |
| Ambient data for general water quality monitoring                                                               | ALUS – DO, pH, temperature, nitrate, phosphate                                                                                                           | North Fork Goose Creek Watershed Committee<br>Kate Marincic              | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, pH and dissolved oxygen data were determined acceptable for assessment of water quality                                                                                             | Reference letter of February 12, 2004 to Kate Marincic.<br><br>9 stations with 247 measurements over the five year assessment window.                                                                                                                                                        |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                                            |                                                                                 |                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                               |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                                                       | Organization/Contact                                                            | QA/QC Review                                                                                                                                                                                                                                                                                    | Comments                                                                                                                                                                      |
|                                                               |                                                                                            |                                                                                 | as VA Category 3C or 3D. The temperature data were determined unacceptable for the assessment due to an inaccurate thermometer and the nutrient methods were determined unacceptable for assessment.<br><b>Temperature and nutrient data not accepted.</b>                                      |                                                                                                                                                                               |
| Ambient data for general water quality monitoring             | SWIM – fecal coliform                                                                      | Page County Water Quality Advisory Committee<br>Dr. Tom Benzing<br>540-568-2794 | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols, analytical methods, and laboratory audit, the fecal coliform data were determined unacceptable for assessment due to deviations from Standard Methods.<br><b>Fecal coliform data not accepted.</b> | Reference letter of February 12, 2004 to Dr. Benzing.<br><br>32 stations with 528 measurements collected for 2 years of the assessment window (September 1998-December 2000). |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, total phosphorus, turbidity, conductivity, alkalinity, ammonia | Pedlar River Institute<br>Dr. Priscilla Gannicott<br>434-544-8291               | A summary of protocols is available. No detailed SOP or QA/QC plan available.<br>Gary Du, 804-698-4189<br><b>No data accepted.</b>                                                                                                                                                              | Reference letter of October 4, 2001 to Dr. Gannicott.<br><br>6 stations with 18 measurements collected during the assessment window (Oct. 1999-May 2000).                     |
| Fecal coliform data for general water quality monitoring      | SWIM – fecal coliform                                                                      | Staunton/Augusta Chapter of the IWLA<br>Paul Bugas<br>540-248-9360              | A summary of protocols is available. No detailed SOP or QA/QC plan available.<br>Gary Du, 804-698-4189<br><b>Fecal coliform data not accepted.</b>                                                                                                                                              | Reference letter of October 4, 2001 to Paul Bugas.<br><br>31 stations with 182 measurements collected for 10 months of the assessment window (Aug. 1999-June 2000).           |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                                                      |                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                                                                 | Organization/Contact                                                                    | QA/QC Review                                                                                                                                                                                                                                                                                                                                                                                                                                   | Comments                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, nitrite, total phosphorus, TKN, solids<br>SWIM – fecal coliform | Upper Rappahannock Watershed Stream Monitoring Program<br>Greg Wichelns<br>540-825-8591 | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols and analytical methods, dissolved oxygen, pH, and temperature data were determined acceptable for assessment of water quality as VA Category 3C or 3D. The fecal coliform and total phosphorus data were determined unacceptable for assessment due to sample collection methods.<br><b>Fecal coliform and total phosphorus data not accepted.</b> | Reference letter of February 12, 2004 to Greg Wichelns. Water quality data for nitrite, solids, and TKN were not used directly for assessment because the state does not have water quality standards for comparison. The state has a water quality standard for nitrate relative to human health in public water supplies only.<br><br>31 stations with 136 measurements collected for 3 years of the assessment window (2000-2002). |
| Citizen biological monitoring program using VA SOS protocols  | ALUS – Benthic macroinvertebrates                                                                    | Virginia Save Our Streams<br>Jay Gilliam<br>540-377-6179                                | QA/QC plan and SOPs for benthic macroinvertebrates<br>Alex Barron , 804-698-4119<br>Benthic macroinvertebrate data were used for assessment of water quality as VA Category 3C or 3D.                                                                                                                                                                                                                                                          | Reference letter of March 10, 2003 to Jay Gilliam.<br><br>396 stations with 1345 sampling events collected over the five-year assessment window.                                                                                                                                                                                                                                                                                      |
| <b>Soil and Water Conservation Districts</b>                  |                                                                                                      |                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Chemical data collected for stormwater discharge monitoring   | ALUS - Nitrate, nitrite, TKN, total phosphorus, TSS<br>SWIM – Fecal coliform                         | Culpeper Soil and Water Conservation District<br>Greg Wichelns<br>540-825-8591          | QA/QC review by DEQ Gary Du, 804-698-4189<br>This data set was determined unacceptable for the assessment because samples were collected at the end of a discharge pipe and not representative of ambient water quality.<br><b>No data accepted.</b>                                                                                                                                                                                           | Reference letter of October 4, 2001 to Greg Wichelns.<br><br>3 stations with 12 measurements collected for 5 months during the assessment window (June 2000-November 2000).                                                                                                                                                                                                                                                           |
| Fecal coliform data short-term projects                       | SWIM – fecal coliform                                                                                | Guest River Project<br>Muiread Craft<br>276-926-6621                                    | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample                                                                                                                                                                                                                                                                                                                                                                         | Reference letter of February 12, 2004 to Muiread Craft                                                                                                                                                                                                                                                                                                                                                                                |

August 2004

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                                    |                                                                               |                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                       |
|---------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                                               | Organization/Contact                                                          | QA/QC Review                                                                                                                                                                                                                                                                                    | Comments                                                                                                                                                                              |
|                                                               |                                                                                    |                                                                               | collection protocols, analytical methods, and laboratory audit, the fecal coliform data were determined unacceptable for assessment due to deviations from Standard Methods.<br><b>Fecal coliform data not accepted.</b>                                                                        | 15 stations with 120 measurements collected for 1 month of the assessment window (Oct. 2000-Nov. 2000).                                                                               |
| Fecal coliform data short-term projects                       | SWIM – fecal coliform                                                              | Lick Creek/Powell River Watershed Projects<br>Shannon O'Quinn<br>423-239-2011 | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols, analytical methods, and laboratory audit, the fecal coliform data were determined unacceptable for assessment due to deviations from Standard Methods.<br><b>Fecal coliform data not accepted.</b> | Reference letter of February 12, 2004 to Shannon O'Quinn.<br><br>13 stations with 317 measurements collected for 2 months of the assessment window (June 2001 and June 2002).         |
| Ambient data for general water quality monitoring             | ALUS – DO, pH, temperature, nitrate, phosphate, turbidity<br>SWIM – fecal coliform | Loudoun Soil and Water Conservation District<br>Pat McIlvaine<br>703-777-2075 | No detailed SOP or QA/QC plan available for chemical parameters. Incomplete lab SOPs for bacteria analysis.<br>QA/QC review by DEQ Gary Du, 804-698-4189<br><b>No data accepted.</b>                                                                                                            | Reference letter of October 4, 2001 to Pat McIlvaine.<br><br>15 stations with 298 measurements collected for almost 2 years of the assessment window (April 1999-Feb. 2001).          |
| Fecal coliform data short-term projects                       | SWIM – fecal coliform                                                              | McClure River Project<br>Lisa Harris<br>276-926-6621                          | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols, analytical methods, and laboratory audit, the fecal coliform data were determined unacceptable for assessment due to deviations from Standard Methods.                                             | Reference letter of February 12, 2004 to Lisa Harris<br><br>14 stations with 588 measurements collected for 3 months of the assessment window (Feb. 2002, Sept. 2002, and Feb. 2003). |



## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT                     |                                                                            |                                                                       |                                                                                                                                                                                                          |                                                                                                                                                                         |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                                          | Parameters/Use Goals                                                       | Organization/Contact                                                  | QA/QC Review                                                                                                                                                                                             | Comments                                                                                                                                                                |
|                                                                                   |                                                                            |                                                                       | <b>Fecal coliform data not accepted.</b>                                                                                                                                                                 |                                                                                                                                                                         |
| Ambient data for general water quality monitoring                                 | ALUS – DO<br>SWIM – fecal coliform                                         | Piedmont Region TMDL Initiative<br>Alecia Daves<br>434- 392-3782      | QA/QC review by DEQ Gary Du, 804-698-4189<br>Upon review of the sample collection protocols, the data were determined unacceptable for assessment due to collection methods.<br><b>No data accepted.</b> | Reference letter of February 12, 2004 to Alecia Daves.<br><br>26 stations with 566 measurements collected for 1 ½ years of the assessment window (Aug. 1999-Feb. 2001). |
| Fecal coliform data short-term projects                                           | SWIM – fecal coliform                                                      | Upper Levisa River Restoration Project<br>Lisa Harris<br>276-926-6621 | QA/QC review by DEQ Gary Du, 804-698-4189<br>The fecal coliform data were determined unacceptable for assessment due to deviations from Standard Methods.<br><b>Fecal coliform data not accepted.</b>    |                                                                                                                                                                         |
| <b>DEQ Chesapeake Bay Program</b>                                                 |                                                                            |                                                                       |                                                                                                                                                                                                          |                                                                                                                                                                         |
| Chesapeake Bay Ambient Program Chemical Data                                      | ALUS – DO, pH, Chl                                                         | DEQ-CBP<br>Rick Hoffman<br>804-698-4334                               | Documented QA/QC Plan<br>Rick Hoffman, Cindy Johnston                                                                                                                                                    | Appx 62 mainstem and tributary stations monitored monthly                                                                                                               |
| Chesapeake Bay Biological Monitoring Data                                         | ALUS – Benthic B-IBI                                                       | DEQ-CBP<br>Rick Hoffman<br>804-698-4334                               | Documented QA/QC Plan<br>Rick Hoffman                                                                                                                                                                    | Appx 21 mainstem and tributary fixed stations, 100 random stations yearly                                                                                               |
| Chesapeake Bay Toxics Monitoring (Middle Tidal James River & Upper Tidal York R.) | ALUS – Sediment Organics, Sediment Metals, Toxicity Tests                  | DEQ-CBP<br>Mark Richards<br>804-698-4392                              | Documented QA/QC Plan<br>Mark Richards (Beth McGee Fish & Wildlife Service)                                                                                                                              | Five stations on each River; not part of annual monitoring program.                                                                                                     |
| Chesapeake Bay Toxics Monitoring (Middle Tidal Rappahannock River)                | ALUS – Sediment Organics, H2O/Sediment Metals, H2O/Sediment Toxicity Tests | DEQ-CBP<br>Mark Richards<br>804-698-4392                              | Documented QA/QC Plan<br>Mark Richards (Lenwood Hall, Univ. MD)                                                                                                                                          | Ten stations; not part of annual monitoring program.                                                                                                                    |
| EPA MAIA Project Toxics                                                           | ALUS – Sediment Organics, , H2O/Sediment Metals,                           | DEQ-CBP<br>Mark Richards<br>804-698-4392                              | Documented QA/QC Plan<br>Mark Richards                                                                                                                                                                   | Appx 100 mainstem and tributary stations                                                                                                                                |

August 2004

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT                                        |                                                                                                           |                                           |                                                                                                                                             |                                                                                                                         |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                                                             | Parameters/Use Goals                                                                                      | Organization/Contact                      | QA/QC Review                                                                                                                                | Comments                                                                                                                |
|                                                                                                      | Sediment Toxicity Test                                                                                    |                                           |                                                                                                                                             |                                                                                                                         |
| EPA MAIA Project<br>Conventional & Biological                                                        | ALUS – Benthic B-IBI                                                                                      | DEQ-CBP<br>Rick Hoffman<br>804-698-4334   | Documented QA/QC Plan<br>Rick Hoffman                                                                                                       | Appx 100 mainstem and<br>tributary stations                                                                             |
| <b>DEQ Ambient Water Quality Monitoring Program</b>                                                  |                                                                                                           |                                           |                                                                                                                                             |                                                                                                                         |
| Ambient Watershed<br>Monitoring Program –<br>Water column                                            | ALUS – DO, pH, T,<br>SWIM – FC                                                                            | DEQ-WQMA<br>Roger Stewart<br>804 698-4449 | Documented QA/QC Plan<br>Gary Du<br>804 698-4189<br>Some data from<br>approximately 150 stations<br>not assessed because of QA<br>concerns. | Approximately 1400 stations<br>monitored monthly or quarterly<br>for entire 305(b) window.                              |
| Ambient Watershed<br>Monitoring Program –<br>Sediment Sampling,<br>Water Column Toxics,<br>Nutrients | ALUS – Sediment<br>Organics, Sediment<br>Metals, Phosphorus, Chl<br>a Water Column<br>Organics & Metals   | DEQ-WQMA<br>Roger Stewart<br>804 698-4449 | Documented QA/QC Plan<br>Gary Du<br>804 698-4189                                                                                            | Approximately 1400 stations<br>monitored once a year for at<br>least part of the 305(b) window.                         |
| <b>DEQ Water Quality Standards Program</b>                                                           |                                                                                                           |                                           |                                                                                                                                             |                                                                                                                         |
| Biological Monitoring<br>Program                                                                     | ALUS – Benthic (bottom<br>dwelling) macrophytes                                                           | DEQ-WQS<br>Jean Gregory<br>804-698-4113   | Protocols and QA/QC Plan<br>Alex Barron<br>804 689-4119                                                                                     | Approximately 200 stations<br>sampled twice a year (spring &<br>fall) by Regional Biologists                            |
| Biological Monitoring<br>Program                                                                     | ALUS – DO, pH, T                                                                                          | DEQ-WQS<br>Jean Gregory<br>804-698-4113   |                                                                                                                                             | Ambient field parameters<br>measured by regional biologists<br>during biological monitoring.                            |
| Statewide Fish Tissue<br>Program                                                                     | FISH – Fish Tissue                                                                                        | DEQ-WQS<br>Jean Gregory<br>804-698-4113   | Protocols and QA/QC Plan<br>Alex Barron<br>804 689-4119                                                                                     | Approximately 40-80 selected<br>stations sampled each year.<br>Rotation around State every 3-5<br>years.                |
| Statewide Sediment<br>Contamination Program                                                          | ALUS – Sediment<br>Organics, Sediment<br>Metals                                                           | DEQ-WQS<br>Jean Gregory<br>804-698-4113   | Protocols and QA/QC Plan<br>Alex Barron<br>804 689-4119                                                                                     | Approximately 40-80 selected<br>stations sampled each year.<br>Rotation around State every 3-5<br>years.                |
| Statewide Lake Monitoring                                                                            | ALUS – DO, pH, T<br>Sediment Organics,<br>Sediment Metals<br>SWIM – FC<br>Recreation – nutrients,<br>chl. | DEQ-WQS<br>Jean Gregory<br>804-698-4113   | Follow ambient watershed<br>QA/QC                                                                                                           | Approx. 100 significant lakes<br>Regions sample priority ranked<br>lakes 3 seasons for one year out<br>of 5 on rotation |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                    |                                          |                                                                                                |                                                                                          |
|---------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                               | Organization/Contact                     | QA/QC Review                                                                                   | Comments                                                                                 |
| James River Monitoring of Fish Tissue for Kepone              | ALUS – Kepone                                                      | DEQ-WQS<br>Alex Barron                   | Protocols for fish sampling<br>Kepone analysis verified by VIMS<br>Alex Barron<br>804 698-4119 | Four stations in James River sampled every year until 2000; every other year thereafter. |
| <b>DEQ Special Studies</b>                                    |                                                                    |                                          |                                                                                                |                                                                                          |
| Ely, Puckett, Straight and Stone Creeks-Dissolved metals-2000 | ALUS-field parms, metals                                           | DEQ-SWRO<br>Fred Kaurish<br>276-676-4840 | DEQ Ambient Program protocols                                                                  | Fourteen stations-single sweep.                                                          |
| Back Creek (TMDL Support)                                     | Recreation – Bacteria (BST)<br>ALUS – DO, Temp, pH, RBP II Surveys | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 3 stations                                                                               |
| Crab Creek (TMDL Support)                                     | Recreation – Bacteria (BST)<br>ALUS – DO, Temp, pH, RBP II Surveys | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 4 stations                                                                               |
| Looney Mill Creek (TMDL Support)                              | Recreation – Bacteria (BST)<br>ALUS – DO, Temp, pH                 | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 4 stations                                                                               |
| Reed Creek (TMDL Support)                                     | Recreation – Bacteria (BST)<br>ALUS – DO, Temp, pH                 | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 3 stations                                                                               |
| Peak Creek (TMDL Support)                                     | ALUS - DO, Temp, pH, RBP II Surveys                                | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 4 stations                                                                               |
| South Mayo River (TMDL Support)                               | Recreation – Bacteria (BST)<br>ALUS – DO, Temp, pH                 | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 1 station                                                                                |
| Stroubles Creek (TMDL Support)                                | ALUS – DO, Temp, pH, RBP II Surveys                                | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 3 stations                                                                               |
| Tinker Creek Drainage (TMDL Support)                          | Recreation – Bacteria (BST)<br>ALUS – DO, Temp, pH                 | DEQ-WCRO<br>Jason Hill                   | Documented QA/QC Plan<br>Roger Stewart                                                         | 10 stations                                                                              |
| Blackberry Creek (Prep to SS)                                 | Recreation – Bacteria (BST)<br>ALUS – DO, Temp, pH                 | DEQ-WCRO<br>Larry Willis                 | Follow ambient QA/QC Plan                                                                      | 21 stations                                                                              |
| Blackwater River (TMDL Support/Implementation)                | ALUS – DO, Temp, pH, RBP II Surveys                                | DEQ-WCRO<br>Larry Willis                 | Follow ambient QA/QC Plan                                                                      | 8 Stations                                                                               |

August 2004

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                                    |                                                       |                                                |                                                                               |
|---------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                               | Organization/Contact                                  | QA/QC Review                                   | Comments                                                                      |
| Big Otter River (TMDL Support)                                | Recreation – Bacteria<br>ALUS - DO, Temp, pH<br>Flow               | DEQ-WCRO, WQMA<br>Roger Stewart / TMDL<br>Coordinator | Follow ambient QA/QC Plan                      | 17 Stations                                                                   |
| Dodd Creek (TMDL Support)                                     | Recreation – Bacteria<br>ALUS – DO, Temp, pH,<br>TP, NH3-N, Flow   | DEQ-WCRO<br>Larry Willis                              | Follow ambient QA/QC Plan                      | 11 stations                                                                   |
| Jackson River Special Study (1998)                            | ALUS – DO, Temp, RPB<br>II Surveys                                 | DEQ-WCRO<br>Larry Willis                              | Follow ambient QA/QC Plan                      | 17 stations                                                                   |
| Mill Creek (TMDL Support)                                     | Recreation – Bacteria<br>ALUS – DO, Temp, pH,<br>TP, NH3-N<br>Flow | DEQ-WCRO<br>Larry Willis                              | Follow ambient QA/QC Plan                      | 8 stations                                                                    |
| Nonpoint Source Priority Special Study (SS 975101)            | Recreation – Bacteria<br>ALUS – DO, Temp, pH,<br>TP, NH3-N<br>Flow | DEQ-WCRO<br>M. J. Scanlan                             | Documented QA/QC Plan<br>Roger Stewart         | 29 Stations                                                                   |
| Ash Camp Creek (Source Assessment 2001-2002)                  | SWIM – FC<br>ALUS – DO, pH, T,<br>BOD5, TSS, Nutrients             | DEQ-SCRO<br>Kyle Winter                               | Documented QA/QC Plan                          | 3 Stations                                                                    |
| Livestock Farms Study                                         | ALUS – DO, pH, T,<br>Phos, Ammonia<br>SWIM – FC                    | DEQ-PRO & SCRO<br>Mark Alling<br>Kyle Winter          | Followed ambient watershed<br>QA/QC procedures | 78 stations total during course of<br>study<br>bimonthly monitoring           |
| Staunton River Low Flow Study                                 | Swimming – FC<br>ALUS – DO, Temp, pH,<br>nutrients, solids, fish   | DEQ-SCRO, WQMA<br>Jean Gregory                        | Biological Project Plan<br>Larry Willis        | 6 Benthic<br>(5 Chemical)                                                     |
| Altavista & Hurt PCB Soil and Sediment Study (2000)           | ALUS – Sediment PCBs                                               | DEQ-SCRO<br>Kyle Winter                               | Documented QA/QC Plan<br>Gary Du               | 30 soil samples<br>(Includes 5 sediment in Lynch<br>Cr.)                      |
| Tidal Embayment Study                                         | ALUS – DO, pH,<br>chlorophyll a, ammonia                           | DEQ-PRO<br>Mark Alling<br>(804) 527-5021              | Followed ambient watershed<br>QA/QC procedures | Sampled once                                                                  |
| James River CSO Study                                         | ALUS –DO, pH, T<br>SWIM - FC                                       | DEQ-PRO<br>Mark Alling<br>(804) 527-5021              | Followed ambient watershed<br>QA/QC procedures | 30 stations twice a month May<br>through October 1994-2001                    |
| Lead Acid Battery Study                                       | ALUS – Metals in<br>sediment                                       | DEQ-PRO<br>Mark Alling<br>(804) 527-5021              | Followed ambient watershed<br>QA/QC procedures | 10 stations near Rocketts<br>Landing sampled once in<br>Fall/Winter 2000-2001 |
| Pfiesteria Monitoring Study                                   | ALUS – DO, pH, T,                                                  | DEQ-PRO                                               | Followed ambient watershed                     | 20 cohort stations and 22 water                                               |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                             |                                          |                                             |                                                                                                                             |
|---------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                        | Organization/Contact                     | QA/QC Review                                | Comments                                                                                                                    |
|                                                               | ammonia, chlorophyll a, phosphorus, algae                   | Mark Alling<br>(804) 527-5021            | QA/QC procedures                            | quality stations sampled May-October 1998-2001                                                                              |
| Bailey Creek PCB/PCT Study                                    | ALUS - Organics in sediment                                 | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 44 stations sampled once during October 1997-September 1995                                                                 |
| James River TBT Study                                         | ALUS – TBT in sediment, water column                        | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 17 stations sampled once during Summer/Fall 2000                                                                            |
| Potomac Dinoflagellate Bloom Study                            | ALUS – DO, pH, T, algae                                     | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | Data set not used. Transient event data considered Level 1 (low confidence) per EPA's 1997 assessment guidance Section 3.2. |
| Pollution Response Program (PreP) Data                        | Various                                                     | DEQ-PRO<br>Mark Alling<br>(804) 527.5021 | Various                                     | Data set not used. Transient event data considered Level 1 (low confidence) per EPA's 1997 assessment guidance Section 3.2. |
| Livestock Farms Study                                         | ALUS – DO, pH, T, Phos, Ammonia<br>SWIM – FC                | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 78 stations total during course of study<br>bimonthly monitoring                                                            |
| BFI Landfill Study                                            | ALUS – DO, pH, Temp, Phos, Ammonia, Metals<br>Swimming - FC | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 3 stations                                                                                                                  |
| Four Seasons Cleaners Study                                   | ALUS – DO, pH, Temp, Phos, Ammonia<br>Swimming - FC         | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 2 stations                                                                                                                  |
| DSCR Study                                                    | ALUS – DO, pH, Temp, organics<br>Swimming - FC              | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 10 stations                                                                                                                 |
| James River Park Bacteria Study                               | Swimming – FC, e.coli                                       | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 5 stations                                                                                                                  |
| White Oak Swamp TMDL                                          | ALUS – DO, pH, Temp                                         | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 7 stations                                                                                                                  |
| Tuckahoe Creek TMDL                                           | ALUS – DO, pH, Temp, Phos                                   | DEQ-PRO<br>Mark Alling                   | Followed ambient watershed QA/QC procedures | 28 stations                                                                                                                 |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT |                                                        |                                          |                                             |                                            |
|---------------------------------------------------------------|--------------------------------------------------------|------------------------------------------|---------------------------------------------|--------------------------------------------|
| Data Set                                                      | Parameters/Use Goals                                   | Organization/Contact                     | QA/QC Review                                | Comments                                   |
|                                                               | Swimming - FC                                          | (804) 527-5021                           |                                             |                                            |
| Mount Landing Creek TMDL                                      | ALUS – DO, pH, Temp                                    | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 4 stations                                 |
| Winterpock Creek TMDL                                         | ALUS – DO, pH, Temp                                    | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | Bridges and streamwalk - Multiple stations |
| Matadequin Creek TMDL                                         | ALUS – DO, pH, Temp<br>Swimming - FC                   | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | Bridges and streamwalk - Multiple stations |
| Winticomack Creek TMDL                                        | ALUS – DO, pH, Temp,<br>Phos, Ammonia<br>Swimming – FC | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 9 stations                                 |
| Skinquarter Creek TMDL                                        | ALUS – DO, pH, Temp,<br>Nutrients                      | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 2 stations                                 |
| Fourmile Creek TMDL                                           | ALUS – DO, pH, Temp                                    | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 13 stations                                |
| Cat Point Creek TMDL                                          | ALUS – DO, pH, Temp                                    | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 17 stations                                |
| Deep Creek TMDL                                               | ALUS – DO, pH, Temp,<br>Nutrients<br>Swimming - FC     | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 4 stations                                 |
| Swift Creek pH TMDL                                           | ALUS – DO, pH, Temp,<br>Nutrients                      | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 1 station                                  |
| Swift Creek DO TMDL                                           | ALUS – DO, pH, Temp,<br>Nutrients                      | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | 1 station                                  |
| Mechumps Creek TMDL                                           | ALUS – DO, pH, Temp                                    | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | Bridges and streamwalk - Multiple stations |
| Piscataway Creek TMDL                                         | ALUS – DO, pH, Temp                                    | DEQ-PRO<br>Mark Alling<br>(804) 527-5021 | Followed ambient watershed QA/QC procedures | Bridges and streamwalk - Multiple stations |

## Appendix D

| WATER QUALITY DATA SETS CONSIDERED FOR 2004 305(b) ASSESSMENT                                          |                                                                                                                    |                                                                                                                               |                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Set                                                                                               | Parameters/Use Goals                                                                                               | Organization/Contact                                                                                                          | QA/QC Review                                                                                                                                                          | Comments                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Federal Programs</b>                                                                                |                                                                                                                    |                                                                                                                               |                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                          |
| EPA's National Study of Chemical Residues in Lake Fish (2001)                                          | FISH -Metals & Other Toxics                                                                                        | EPA                                                                                                                           | NA                                                                                                                                                                    | 8 fish tissue samples taken at 4 sites in Virginia                                                                                                                                                                                                                                                                                                                       |
| Water Quality monitoring                                                                               | Overall WQM                                                                                                        | USGS                                                                                                                          | Standard methods are used. Data accepted                                                                                                                              | Data provided by Kenneth E. Hyer, Water Quality Specialist                                                                                                                                                                                                                                                                                                               |
| Water Quality monitoring                                                                               | ALUS-benthic monitoring, general water quality                                                                     | USFS                                                                                                                          | ALUS method comparable, pH exceeds holding time. Biological data accepted; pH not accepted                                                                            | Data provided by Dawn Kirk, Forest Fisheries Biologist                                                                                                                                                                                                                                                                                                                   |
| Routine reservoir monitoring                                                                           | SWIM-e. coli & fecal coliform                                                                                      | TVA                                                                                                                           | QA/QC review by Gary Du at laboratory in Johnson City, TN. Data accepted.                                                                                             | Data provided by Rebecca Hayden                                                                                                                                                                                                                                                                                                                                          |
| Coastal 2000 - Estuarine Probabilistic Monitoring (minor Chesapeake Bay and coastal tidal tributaries) | ALUS, DO, pH, Temp, Nutrients, Chlorophyll-a, Sediment triad (chemistry, toxicity, benthos), Fish tissue chemistry | EPA<br><br><b>DEQ-CO</b><br>Donald H. Smith<br>(804) 698-4429...<br><b>QA/QC considerations:</b><br>Gary Du<br>(804) 698-4189 | QA/QC by Gary Du in field audits, at DCLS laboratories and of locally analyzed results; John McCauley (EPA) and Tom Heitmuller (USGS) for EPA-contracted laboratories | Cumulative parameter data, such as sediment and tissue chemistry, sediment toxicity and benthic community structure are assessed using a 'weight of evidence' approach as soon as they return from EPA-contracted laboratories. Single event, water column 'grab sample' data, is used for probabilistic resource characterizations, but not for water body assessments. |
| <b>Municipal Data</b>                                                                                  |                                                                                                                    |                                                                                                                               |                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                          |
| Routine reservoir monitoring                                                                           | ALUS – DO, pH , Temperature                                                                                        | City of Norfolk<br>Lakes Program<br>David S. Rosenthal, CLM<br>Reservoir Manager<br>757-441-5678 ext. 253                     | QA/QC review by Gary Du at laboratory in City of Norfolk                                                                                                              | Data provided by David S. Rosenthal, CLM, Reservoir Manager.                                                                                                                                                                                                                                                                                                             |
|                                                                                                        |                                                                                                                    |                                                                                                                               |                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                          |

